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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

CHANNAVAJALA, LAKSHMI SARADA

ART UNIT

PAPER NUMBER

1615

DATE MAILED: 12/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/820,934

Applicant(s)

CANNELL ET AL.

Examiner

Lakshmi S Channavajjala

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 October 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-186 is/are pending in the application.
- 4a) Of the above claim(s) 10-12, 20-28 and 60-186 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13-19 and 29-59 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

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### DETAILED ACTION

Receipt of request for reconsideration, dated 10-23-02 is acknowledged.

#### *Summary of the claims*

1. Instant claims 1-9, 13-19 and 29-59 are directed to a composition for durable conditioning of at least one keratin fiber comprising at least one compound chosen from C3 to C5 monosaccharides, substituted with C1 to C22 carbon chain and at least one compound comprising at least two quaternary ammonium groups, wherein the compound is present in an amount effectively to durably condition at least one keratin. However, instant claims recite the intended use "for durable conditioning of at least one keratin fiber", which does not carry patentable weight. Accordingly, instant claims are treated as compositions comprising C3 to C5 monosaccharides, substituted with C1 to C22 carbon chain and at least one compound comprising at least two quaternary ammonium groups.

The following rejection was made in previous action, paper # 7:

#### *Double Patenting*

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground

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provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1-9, 13-19 and 29-59 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-85, 152 and 153 of copending Application No. 09/820,480. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are obvious over the copending claims. Instant claims are drawn to a composition containing C1 to C22 substituted C3 to C5 monosaccharides, and method of protecting hair using the same. Copending claims are drawn to a composition containing C3 to C5 monosaccharides, with film forming polymers of the instant claims. The monosaccharides, film forming polymers and their amounts claimed in the copending application are same as that of the instant. While both sets of claims recite different purposes (i.e., shaping of hair or conditioning of hair), it would have been obvious for one of an ordinary skill in the art at the time of the instant invention to use the composition of copending claims containing C3 to C5 monosaccharides and film forming polymers of because the copending claims teach C3 to C5 monosaccharides, which include both substituted and unsubstituted monosaccharides. Further claim 139 of the copending claim specifically states substituted C1 to C22 monosaccharides. Accordingly, one of ordinary skill in the art would have expected that the composition of copending claims i.e., C1 to C22 substituted C3 to C5 monosaccharides and film forming polymers condition the hair as well as impart durable non-permanent shaping to the hair.

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***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9, 13-19 and 29-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 6,235,298 to Naser et al (hereafter Naser) and US 5688930 to Bertho et al (hereafter Bertho).

Naser teaches Phase stable emulsion composition for hair treatment, in particular delivering topically active compounds to skin and hair, in the form of hair fixatives, hair dyes, hair relaxers or straighteners etc (col. 5, lines 10-53), comprising surfactants, thickeners etc. Naser teaches a water-soluble quaternary ammonium hair conditioner such as the claimed Polyquaternium-10 (col. 5, lines 54-68 and col.6, in particular line 46 of col.6 and col. 7, lines 19-32). Naser also teaches incorporating an anionic polysaccharide, obtained from seaweeds, in the compositions. The latter includes xylose, arabinose etc (col. 18, lines 44-64). The reference fails to teach the exact amounts of water-soluble quaternary ammonium hair conditioner. However, Naser teaches the water-soluble quaternary ammonium compound as an active agent for topical delivery. Accordingly, optimizing the amount of water-soluble quaternary ammonium hair conditioner with an expectation to achieve the optimum hair conditioning effect would have been obvious for one of an ordinary skill in the art. Naser fails to teach the claimed pentoses or XYLIANCE (elected by applicants).

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Bertho teaches alkyl pentosides from wheat products, which is a mixture of glycosides such as glucose, xylose and arabinose (col. 2, lines 35-45). Thus, xylose is a part of the pentoside. Bertho teaches the mixtures as surfactants for hair care (col. 6, lines 14-34). The alkyl groups of Bertho range from 6-22 carbons, specifically 14-20 C, which is within the claimed range, (col. 3, lines 53-67 and col. 7, lines 6-9), at a concentration of 0.1% to 60% (col. 7, lines 13-18).

Therefore, it would have been obvious for one of an ordinary skill in the art at the time of the instant invention to incorporate the alkyl pentoside mixture of Bertho in the hair composition containing the Polyquaternium-10 hair conditioner of Naser because Bertho suggests that their raw material is cheap having economic advantage (col. 1, lines 35-45) and has the ability to act as a surfactant, enhance foaming, emulsifying and detergent power (col. 6, lines 33-35). One of an ordinary skill in the art would have expected to improve the emulsifying power of the composition of Naser with a cheaper material of Bertho.

### ***Information Disclosure Statement***

Items #18 and #19 on the IDS are not considered because they lack date.

### ***Response to Arguments***

#### Double patenting rejection:

Applicants state that they were unable to locate the co-pending application, 09/820,480, against which the above double patenting rejection made. Examiner inadvertently made a typographical error and the correct application number is 09/821,480.

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IDS: Examiner noted applicant's clarification regarding the dates of the references cited on IDS. However, the explanation is not persuasive. Items 18 and 19, cited on page 2 of PTO-1449 include several abstracts, which have to be listed separately, along with the dates. Accordingly, the items are not considered.

Applicant's arguments filed 10-23-02 have been fully considered but not found persuasive.

35 USC 103(a):

Applicants argue that the two basic criteria of suggestion or motivation to combine the references and reasonable expectation of success in making the proposed modification is not met by the examiner, in rejecting the claims 1-9, 13-19 and 29-59 as being unpatentable over Naser et al in view of Bertho et al. Applicants argue that substantial picking and choosing from among numerous optional ingredients would be required in order to arrive at the presently claimed invention and that examiner did not provide any motivation in arriving at the claimed combination. This argument is not persuasive because Naser teaches the same quaternary ammonium compounds claimed in the instant invention, as the first active compounds of their composition (col. 5, lines 54-64; col. 6, lines 38-54 and col. 7, lines 19-46). Naser teaches quaternary ammonium compounds have excellent hair conditioning effects. According to claim 56, instant composition can also be in the form an emulsion. Thus, the emulsion composition of Naser contains hair conditioning quaternary ammonium compound as an active ingredient. While applicant argues that one has to pick and choose from the list of Naser, applicants have not explained, how one can neglect the important hair conditioners in the teachings of Naser.

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Applicant's argument that Naser does not exemplify instant quaternary ammonium compound is moot because it is not necessary for the prior art to exemplify each and every embodiment that is within the scope of their invention. Naser described the same Polyquaternium compounds (Polyquaternium-6, 7, 10, 11, 24 etc.) at several instances, emphasizing their importance as excellent conditioning agents.

With respect to the teachings of Bertho, applicants argue that there is no motivation to add the alkyl pentosides of Bertho to the compositions of Naser, because the multiple emulsion of latter requires a specific surfactant and selection system, which is critical in preventing phase separation. However, Bertho teaches that the alkyl pentosides act as surfactants in not just foaming compositions, but in various types of emulsions, and are very stable (col. 7, lines 9-26) examples in col. 27 -28). Further, Bertho teaches that alkyl pentosides can be used together with thickeners such as gums and clays, which modify the rheological behavior of the compositions (col. 19, lines 18-42). Therefore, one of an ordinary skill in the art would have been able to successfully employ alkyl pentosides of Bertho in foaming compositions as well as emulsions, for their emulsifying power and still obtain stable and yet less expensive surfactants.

Accordingly, it would have been obvious for one of an ordinary skill in the art to use the alkyl pentoside surfactants of Bertho in the emulsions containing quaternary ammonium compounds, of Naser, with an expectation to cheap surfactants that are advantageous owing to their biodegradability.



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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lakshmi S Channavajjala whose telephone number is 703-308-2438. The examiner can normally be reached on 7.30 AM -4.00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K Page can be reached on 703-308-2927. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7924 for regular communications and 703-308-7924 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.



Lakshmi S Channavajjala  
Examiner  
Art Unit 1615  
December 17, 2002